

#4 4-6-01  
IDS references

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



Serial No. : Group Art Unit:  
Filed :  
Applicant : **Georges BETTAN**  
Title : **A TELECOMMUNICATION DEVICE AND METHOD FOR  
CONVERTING PULSE TO DTMF BY DETECTING THE LOOP  
CURRENT**  
Attorney Docket :

**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. 1.97-1.99**

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The Honorable Commissioner  
of Patents and Trademarks  
Washington, D.C. 20231

Dear Sir:

In compliance with the provisions of 37 C.F.R. 1.97-1.99, the Applicant encloses herewith copies of references which are considered to be pertinent to the above-identified application with translations of any non-English language references, if available. The references are listed on the attached Form PTO-1449 as a convenience to the Examiner and the Patent and Trademark Office.

**STATEMENT OF RELEVANCY**

1. United States Patent No. 4,675,902 (Boeckmann)  
**HIGH PERFORMANCE TELEPHONE INSTRUMENT WITH COMBINATION  
PULSE AND TONE DIALING CAPACITY**

Boeckmann describes an electronic telephone instrument circuit capable of dialing (address signaling) in either pulse or tone mode. The circuitry permits the placement of a call through a rotary dial only system into a second network that is of a tone only nature. The included circuitry has a very high return loss and a relatively high level of tone capability and is designed to function with a variety

of types of dialer integrated circuits. The circuitry provides part of its DC current supervision while in the voice mode through the included tone amplifiers circuit thereby minimizing components and reducing current load through the voice network.

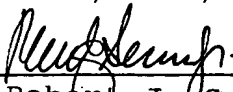
2. United States Patent No. 5,369,697 (Murray et al)  
**METHOD AND APPARATUS FOR AUTOMATICALLY SWITCHING BETWEEN PULSE CODE AND DTMF SIGNALS GENERATED BY A TELEPHONE**

Murray et al describes dual tone multifrequency (DTMF) signals that are automatically generated by a telecommunications device after a telephone number is called. The signals generated to call the telephone number are determined by a manually operated switch indicating pulse code signal generation or dual tone multifrequency signal generation. It is determined that the telephone number has been dialed by detecting a ring-back signal, voice frequency signals, DTMF signals, or data stream signals. Alternatively, if a predetermined period of time passes, it may be assumed that the telephone number has been dialed. Upon detecting one of these signals or the passage of time, the telecommunications device is controlled to generate only dual tone multifrequency signals for communication with automated services, such as voice mail, telephone banking and reservation systems.

3. United States Patent No. 4,914,690 (Hagedorn)  
**UNIVERSAL PBX INTERFACE**

Hagedorn discloses a universal PBX-to-central office interface for standards conversion for supporting normally incompatible telephone equipment in PBX environments. The equipment is adapted for connection between the central office and a PBX along DID or DOD trunk lines. This enables capture of incoming signaling and data in any one of three dialing modes (DTMF, MF and pulse dial) and conversion of this standard to whatever dialing mode is required by the equipment attached to the interface. The device will also do signaling conversion for peripheral equipment attached to PBX systems such as voice mail systems. The interface is capable of capturing extension signals transmitted from the central office to the PBX and saving them in memory for later downloading to a voice mail system to recover the extension of the dialed party after it has been forwarded to the voice mail system.

Respectfully submitted,  
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By   
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